

REDUCING DELAYS ASSOCIATED WITH
INSERTING A CHECKSUM INTO A NETWORK MESSAGE

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ABSTRACT OF THE DISCLOSURE

A first partial checksum for the header portion of a TCP header is generated on an intelligent network interface card (INIC) before all the data of the data payload of the TCP message has been transferred to the INIC. A pseudopacket with the first partial checksum and the data is assembled in DRAM on the INIC as the data arrives onto the INIC. When the last portion of the data of the data payload is received onto the INIC, a second partial checksum for the data payload is generated. The pseudopacket is read out of DRAM for transfer to a network. While the pseudopacket is being transferred, the second partial header is combined with the first partial header and the resulting final checksum is inserted into the pseudopacket so that a complete TCP packet with a correct checksum is output from the INIC to the network.